Mirjam Plantinga, Janneke Plantenga, and Jacques Siegers

The Relation Between Market Forces and Employee Motivation: Consequences of the Introduction of Market Forces in the Dutch Childcare Sector

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Consequences of the introduction of market forces in the Dutch childcare sector

The Dutch childcare sector has undergone a transition from a welfare sector into a market sector. The final step in this transition process was taken with the introduction of a new Dutch Childcare Act on 1 January 2005. In discussions about the introduction of market forces, the possible effects on employees are usually not taken into consideration. This is remarkable given that it is generally assumed that employee motivation in the public sector differs from employee motivation in the private sector. This article focuses on the consequences of the introduction of market forces in the Dutch childcare sector for the motivation of childminders. The sample consists of 477 childminders working for 30 different Dutch childcare providers. The results show that the extent to which childcare providers are confronted with market forces is not related to the employees' governance nor to the intrinsic motivation of childminders.

Introduction

Over the last decade, in most Western countries market forces have been introduced in public sectors such as health care, home care, public transport, and social security. The main reason for this transition of public to private is the assumption that the market will create a more efficient incentive structure. The business-like approach will provide an incentive for suppliers to increase cost efficiency, resulting in lower prices. It is also assumed that the introduction of market forces might lead to a better match between supply and demand. It is expected that consumers select the provider that offers the best value for money and that the sector may adapt more rapidly to changing circumstances. The introduction of market forces is therefore assumed to increase both cost efficiency and dynamic efficiency.

In line with this overall trend, the Dutch childcare sector has been transformed from a welfare sector into a market sector. While extensive attention was paid to the possible effects for providers and customers in discussions on the introduction of market forces, the effects for the employees concerned are hardly ever considered. This is remarkable given that it is generally assumed that employee motivation in the public sector differs from employee motivation in the private sector (Le Grand, 2003). The motivation of public sector employees is assumed to be driven more by intrinsic rewards, such as having a meaningful job and less by extrinsic rewards, such as a high salary and status (Houston, 2000; Wright, 2001; Taylor, 2007). This article tries to resolve this omission by focusing on the consequences of the introduction of market forces in public sectors for employee motivation. More specifically, we will answer the question whether the extent to which childcare providers are confronted with market forces is related to the motivation of childminders.

With the introduction of the Childcare Act in 2005, the Dutch childcare sector has changed from a financed welfare sector into a demand-driven market sector, implying that there is no public provision of childcare services in the Netherlands anymore. Instead, only private for-profit (60% of all Dutch childcare organisations), or not-for-profit (the remaining 40%) childcare providers operate and compete in the childcare market (Noailly *et al*., 2007; Huber *et al*., 2008). The focus on employee motivation in the childcare sector is of further interest because the relation between the introduction of market forces and employee motivation might be especially relevant in labour intensive sectors, as the performance of these sectors is highly dependent on the willingness and quality with which the employees apply themselves to their tasks (Franco *et al*., 2002). Moreover, the question what the consequences are of the introduction of market forces in public sectors for employee motivation and employee performance is recently also addressed by others (Bozeman, 2007). Until now this question has, at least with regard to the Dutch context, not yet been extensively explored.

The article is structured as follows. First, we will describe the introduction of market forces in the Dutch childcare sector. Subsequently, we will present the theoretical framework. Next, we will discuss the data and methods, followed by the results. The final section contains the conclusions.

The introduction of market forces in the Dutch childcare sector

The growth of the Dutch childcare sector

Over the past decade, the supply of formal childcare in the Netherlands has grown substantially. This growth is best illustrated by the number of children making use of childcare facilities: this increased from 52,900 in 1990 to 343,000 in 2005 (Plantinga, 2006; Statistics Netherlands, 2007b). In the Netherlands, daycare facilities are most popular. In 2005, little over 200,000 children made use of a daycare facility, which is 25% of all children between 0 and 4 years of age (Statistics Netherlands, 2007a; Statistics Netherlands, 2007b). Over time, the Dutch childcare sector has therefore evolved from a rather marginal sector with 8,000 employees in 1990 into a mature sector employing over 71,000 employees in 2005 (Plantinga, 2006; Statistics Netherlands, 2007b).

The typical childcare employee – the childminder – is female and relatively young (Huber *et al*., 2008). The childcare sector has one of the highest percentages of female personnel and the lowest average employee age (Hingstman *et al.*, 2003). Moreover, the status of the childminder profession is not very high in Europe (Huber *et al*., 2008). Although there is some variation in qualification between countries, childminders generally have fewer formal qualifications than primary school teachers (OECD, 2007). Furthermore, the childminder profession offers little career opportunities. For the childminders, autonomy and conducting meaningful work form the most important aspects of their job, while they are least motivated by the financial compensation and career perspectives (Lindsay and Lindsay, 1987; Philips *et al*., 1991). As such, childminders, like many public sector employees, are characterised by a high level of intrinsic motivation (Leete, 2000).

From a welfare sector to a market sector

Parallel to the growth in the number of childcare places, the Dutch childcare sector has undergone a transition from a welfare sector to a market sector. The first step in this transition was taken with the introduction of the Stimulative Measures in 1990 (Turksema, 2000). This particular subsidy scheme aimed at increasing the supply of childcare facilities by allocating the costs of childcare to three different parties: the government, the employers and the employees. The involvement of employers in financing childcare has been unique for the Netherlands and made it possible for the Dutch government to realise a large increase in the number of childcare places while avoiding high costs (OECD, 2002).

The Stimulative Measures did not only increase the supply of childcare but also created competition among childcare providers. Childcare providers were stimulated to sell child places to employers by only granting subsidies to childcare providers who supplied so-called employer-financed child places. Employers, in turn, were stimulated to buy child places through a premium for every child place they bought for their employees (OECD, 2002). Since both subsidised and non-subsidised childcare providers could receive subsidies for supplying employer-financed child places, the Stimulative Measures increased competition.

An important next step in the transition from a welfare sector to a market sector has been the decentralisation of childcare policy to the level of municipalities as of 1 January 1996. With this decentralisation, the responsibility for the supply of childcare was entirely taken over by the municipalities (Turksema, 2000). Since municipalities entered into relationships with various providers, subsidised childcare providers saw an increase in competition and an increasing pressure to raise efficiency.

The final step in the transition from a welfare sector to a market sector took place with the introduction of a new Childcare Act on 1 January 2005: the '*Wet Kinderopvang*'. With the introduction of this new act, the financial organisation of the childcare sector changed from a system of supply financing to one of demand financing. This implies that from 2005 onwards childcare customers (i.e. working parents) pay the full price for childcare and are compensated directly by the government and their employer (Plantenga *et al.*, 2005).

Market regulation

Even though market forces have been introduced, the Dutch government has not turned away from the childcare sector. By compensating parents for the costs of childcare, the government maintains its influence on the accessibility and thus the demand for childcare, while the quality of childcare is influenced by imposing certain quality standards on childcare providers. Therefore, market forces have been introduced in the childcare sector within the boundaries set by the government. Currently, the quality rules are laid down in the Childcare Policy Rules and include stipulations regarding parental involvement, safety regulations, group size, and staff-to-child ratio. The quality rules contain the minimum requirements that childcare providers have to meet and thus influence the choices childcare providers are able to make in the transformation from a welfare sector to a market sector.

Theoretical Framework

Extrinsic and intrinsic motivation

In order to understand the consequences of the introduction of market forces in the childcare sector in terms of employee motivation, it is important to distinguish between extrinsic and intrinsic motivation. Research has shown that people do not just work for money, but that they can also be motivated by the work itself (Deci, 1975; Frey, 1997a). In most jobs, both types of reward form an important source of motivation. Extrinsic rewards such as financial rewards and status trigger the extrinsic motivation of the employee, while intrinsic rewards such as having an enjoyable job and getting an opportunity for personal development trigger intrinsic motivation.

Both forms of motivation are important. For the employer, having employees who are partly extrinsically motivated is important for management reasons. The use of financial rewards may be an efficient way to motivate personnel, especially with regard to more unpleasant aspects of a job. Intrinsic motivation, on the other hand, is important as well. First of all, intrinsically motivated employees have a higher learning capacity than extrinsically motivated employees. Furthermore, laboratory experiments suggest that cognitively difficult tasks are better solved by intrinsically motivated employees. Finally, intrinsically motivated employees are less costly when it comes to maintaining discipline. They work well regardless of whether the employer is monitoring their performance, because the work per se is fulfilling (Gallie, 2007). Thus intrinsic motivation is valuable especially in jobs that demand a high level of employee creativity and where monitoring costs are high (Frey, 1993). In addition, empirical evidence has shown that work governed by intrinsic motivation is associated with better mental and physical health than work governed by extrinsic motivation. Employees who are characterised by a high level of intrinsic motivation indicate a higher work and life satisfaction than employees who are characterised by a high level of extrinsic motivation (Frey, 1997a). The conclusion therefore seems to be that although intrinsic motivation is important in all jobs, it is of particular importance in certain specific jobs.

For the motivation of employees, each individual job may thus require a different package of extrinsic and intrinsic rewards. Traditionally, the public sector scores relatively high on intrinsic rewards and relatively low on extrinsic rewards (Ministry of Internal Affairs, 2001; Van Raaij *et al.*, 2002). This will constitute an attractive job profile for employees who are strong on intrinsic rewards. The question is how changes in the public sector, such as the introduction of market forces, affect the level of extrinsic and intrinsic rewards and thus the extrinsic and intrinsic motivation of employees.

Affecting extrinsic and intrinsic motivation

The literature on task characteristics claims that intrinsic motivation at work ‘may actually have more to do with how tasks are designed and managed than with the personal dispositions of the people’ (Hackman and Oldham 1980, p. 76-77). Over the years, much has been learned about how work can be organised and how employees can be governed in order to create high levels of intrinsic rewards and thus high levels of intrinsic motivation (Jansen *et al.*, 1996; Houkes, 2002). The way an organisation is structured and the way employees are governed may, therefore, have an impact on the extrinsic and intrinsic rewards employees get from their job and thus on their level of extrinsic and intrinsic motivation. Depending on the type of employee governance, a different package of extrinsic and intrinsic rewards emerges. A change in employee governance therefore influences the extrinsic and intrinsic motivation of employees, first of all through a change in extrinsic and intrinsic rewards.

If there would be a direct linear relationship between extrinsic and intrinsic rewards and extrinsic and intrinsic motivation, motivating employees would not be that difficult. An employer could then motivate employees intrinsically by making the job as interesting as possible and extrinsically by promising a financial bonus (Frey and Osterloh, 2002). For this, however, we are to presume that extrinsic motivation and intrinsic motivation function independently of one another. This proves not to be the case.

The cognitive evaluation theory of Deci (1975) was the first to underline the interdependence between extrinsic and intrinsic motivation. According to the cognitive evaluation theory, intrinsically motivated behaviour is based on people's need to feel competent and self-determined. The effect that extrinsic rewards have on intrinsic motivation is therefore dependent on how the recipients interpret the rewards. People may perceive an external reward as controlling or as informational. If the recipient perceives the reward as informational, more self-determination and competence will be derived from conducting the activity, and intrinsic motivation will increase. However, if the recipient perceives the reward as controlling, he will derive less self-determination and competence from conducting the activity, and his intrinsic motivation will dwindle (Ryan and Deci, 2000).

The social-psychological model of interaction between extrinsic and intrinsic motivation was introduced in economics by Frey (1992) as the crowding theory. In line with Deci (1975), Frey assumes that intrinsic motivation increases if individuals perceive an external intervention as supportive. In this case, a crowding-in effect is said to occur. However, if individuals perceive an external intervention as controlling, intrinsic motivation decreases and a crowding-out effect will occur (Frey, 1997a). An important aspect of the crowding theory is that Frey assumes, and empirical research confirms this assumption, that intrinsic motivation cannot just be crowded-out by extrinsic rewards but by regulation as well (Frey, 1997a). Changes in the employee governance of childminders may therefore not only affect the motivation of childminders by changing extrinsic and intrinsic rewards, but also by the way in which the change in employee governance is perceived.

Furthermore, it is important that employees with a high level of intrinsic motivation are particularly susceptible to crowding-out effects. Moreover, crowding-out effects may have consequences in the long term. While the effects of a decrease in extrinsic or intrinsic rewards on employee motivation can be made undone immediately by withdrawing the changes that were made, a crowding-out effect cannot be reversed instantly. For in this case intrinsic motivation has eroded and we know that the process of building up intrinsic motivation is much slower than the process of destroying it (Frey, 1997b).

Consequences of the introduction of market forces for the motivation of childminders

The introduction of market forces in the Dutch childcare sector will directly affect childcare providers. Instead of being a non-profit company that can rely on government subsidies, the introduction of market forces requires of childcare providers to become independent businesses, able to make a profit from their services. To cope with this change, and to hold their position in the market, providers have different strategies they can adopt. They might try to stand out by offering services that other organisations do not offer, such as longer or flexible opening hours or other services besides childcare. Another option may be to lower consumer prices by increasing cost efficiency. Since personnel costs are the most important cost factor in the labour-intensive childcare sector (PriceWaterhouseCoopers, 2005), a more efficient employment of personnel forms an important strategy for realising a decrease in the cost price. In this article, we therefore focus on the extent to which childcare providers respond to the introduction of market forces by redefining the way in which they govern their employees. In effect, we presume that the introduction of market forces will alter the employee governance of childcare providers in four ways: the flexibility of employment contracts, the tightness of the job design, the focus on pay-for-performance in the reward and career system, and the attractiveness of the reward and career system.

An important efficiency measure in the childcare sector is the extent to which the number of childminders is adjusted to the number of children present in the daycare centre. Since the number of children present in the daycare centre is not consistent throughout the week, the number of childminders that are necessary to look after these children needs to be flexible in order to realise high personnel efficiency. By working with flexible employment contracts, childminders can be scheduled for work on busy days. In addition, efficiency can be increased by raising the tightness of the job design. Whenever there are fewer children present than expected, for example, childminders may be required to take the day off or to work in a different group or at a different location. As this generates a better match between supply and demand the overall level of personnel efficiency is raised as well.

An increase in personnel efficiency requires flexibility and effort from the childminders. In order to motivate childminders to work hard, we presume that childcare providers will use performance-related pay following the trend in the private sector (OECD, 2005). In addition, childcare providers can be expected to increase the attractiveness of their reward and career system, for example by offering higher wages than required under the collective bargaining agreement or by offering childminders the possibility for personal development in their work.

Overall, the introduction of market forces in the Dutch childcare sector, and the related pressure to increase personnel efficiency, is expected to affect the employee governance of childcare providers. The introduction of market forces in the Dutch childcare sector is expected to have a positive effect on the flexibility of employment contracts, the tightness of the job design, the focus on pay-for-performance in the reward and career system, and the attractiveness of the reward and career system.

The changes in employee governance will not leave the childminders unaffected. We presume that the increase in flexibility of employment contracts has a negative impact on the extrinsic motivation of the childminders, because flexible employment contracts offer less job security and thus less extrinsic rewards. An increase in flexibility of employment contracts is also expected to have a negative impact on the intrinsic motivation of the childminders since it requires more flexibility from the childminders, which might increase work pressure and decrease intrinsic rewards. This same argument goes for an increase in tightness of job design and an increase in focus on pay-for-performance in the reward and career system. These changes in employee governance are expected to be perceived as controlling and as such they will negatively affect intrinsic motivation.[1] Increases in attractiveness of the reward system and in the focus on pay-for-performance in the reward and career system are expected to positively affect extrinsic motivation. Finally, an increase in attractiveness of the career system is expected to increase both intrinsic and extrinsic motivation by offering more extensive possibilities for personal development.

Overall, the changes in employee governance are expected to have both positive and negative consequences for the extrinsic and intrinsic motivation of the childminders. Therefore, the outcome of the introduction of market forces in the Dutch childcare sector on the extrinsic and intrinsic motivation of the childminders is not evident beforehand. Nevertheless, as said, the reforms in the childcare sector may also affect the motivation of the childminders in how the reforms are perceived. Because financial considerations rather than the interest of the childminders or the children have been leading, the introduction of market forces is expected to be perceived negatively by the childminders.

Data and Methods

Sample

The effects of a longitudinal process, i.e. the introduction of market forces in the Dutch childcare sector, are measured using cross-sectional data. The extent to which childcare providers in the sample are confronted with market forces is assumed to reflect the development of childcare providers over time. The data collection took place from March to September 2004, before the introduction of the Dutch Childcare Act on 1 January 2005. At that time, subsidised childcare providers still existed, making it possible to compare childcare providers differing in the extent to which they are confronted with market forces. In total, we approached 38 childcare providers, differentiated in terms of subsidy level, size and urbanity. From the 38 providers, 30 were willing to participate, i.e. a 70% response rate. Subsequently, written questionnaires were distributed among childminders working in one of the 68 selected daycare centres of the childcare providers in the sample. In total, 1046 questionnaires were distributed, 477 of which were returned. This implies a response rate of 46%, which can be considered adequate to social science standards (Babbie, 2007).[2] The final sample consists of 6 male and 471 female respondents. The average age of the childminders in the sample is 32 (sd 9.9). On average, the childminders in the sample are working 4.9 years for the present employer (sd 4.5) and have a contract for 27 hours a week (sd 7.2). Given that the characteristics of the childminders in the sample are in line with the characteristics of the childminders in the childcare sector (Prismant, 2008), we do not find indications of a bias in response.

Operationalisations

Market forces

The extent to which childcare providers are confronted with market forces is measured by the degree to which providers are financially independent from government subsidies. The financial independence of childcare providers is measured by a self-constructed five-item scale with a Cronbach's alpha of 0.76. The scale consists of items such as whether or not the provider stems from a welfare tradition (no (0); yes (1)) and whether the childcare provider currently has a subsidy relationship with the government (no (0); yes (1)).

Employee governance

The measurement of employee governance of childcare providers is based on four aspects: the flexibility of employment contracts, the tightness of the job design, the focus on pay-for-performance in the reward and career system, and the attractiveness of the reward and career system. The flexibility of employment contracts is measured by the percentage of substitute workers. The higher the percentage of substitute workers, the higher the flexibility of employment contracts will be. The tightness of the job design of childcare providers is measured by the staff-to-child ratio, which is the number of childminders present during opening hours expressed in full-time equivalents per child. The lower the staff-to-child ratio, the more children the childminders have under their supervision and, thus, the tighter the job design. Due to the low N and the rough measures that are available, both variables are operationalised as dichotomous items. The focus on pay-for-performance in the reward system is measured by the possibility of offering childminders a higher wage for a better than average performance (no (0); yes (1)). The focus on pay-for-performance in the career system is based on the way promotions are organised, by seniority (0) or by performance (1). The attractiveness of the reward system is measured by a self-constructed two-item scale with a Cronbach's alpha of 0.44.[3] The items are payment according to (0) or above (1) the requirements laid down in the collective labour agreements and secondary conditions of employment according to (0) or above (1) collective labour agreement. Finally, the attractiveness of the career system is measured by a self-constructed four-item scale with a Cronbach's alpha of 0.68. The scale consists of items such as the extent to which childcare providers offer childminders possibilities to develop themselves through broadening their tasks or following courses (very low (1); very high (5)).

Extrinsic and intrinsic motivation

Extrinsic motivation is measured by a four-item scale taken from Denton *et al.* (2002). Childminders are asked to indicate on a five-point scale to what extent they agree with the following statements: my benefits are good; my chances for promotion are good; my job security is good; and I feel that I am being paid fairly (disagree completely (1); agree completely (5)). The scale has a Cronbach's alpha of 0.71. Intrinsic motivation is measured by a two-item scale taken from Denton *et al.* (2002). The scale from Denton et al. (2002) originally consists of three items. Because one item (my job gives me a sense of purpose in life – a reason to get up in the morning) does not scale well, it is left out. Childminders are asked to indicate on a five-point scale to what extent they agree with the following statements: My job gives me a sense of fulfilment; and, my job is interesting (disagree completely (1); agree completely (5)). The scale has a Cronbach's alpha of 0.66.

Results

The descriptive statistics of the employee governance of childcare providers and extrinsic and intrinsic motivation of childminders are given in Table 1.

Table 1: Descriptive statistics employee governance and motivation of childminders

Variable	Min.	Max.	Mean	SD	N
Employee governance					
Flexibility employment contracts (percentage substitute workers)	0	0.38	0.15	0.10	23
Tightness job design (staff-to-child ratio)	0.11	0.31	0.21	0.06	23
Pay-for-performance reward system (bonus good performance, no = 0, yes = 1)	0	1	0.30	0.47	30
Pay-for-performance career system (promotion based on performance, no = 0, yes = 1)	0	1	0.93	0.26	29
Attractiveness reward system					
(scale, 0 = low, 0.5= medium, 1 = high)	0	1	0.27	0.35	28
(rewards > Collective Labour Agreement, no= 0, yes = 1)	0	1	0.14	0.36	28
(secondary conditions > CLA, no = 0, yes = 1)	0	1	0.41	0.50	29
Attractiveness career system					
(scale, very low = 1 .. very high = 5)	2	4.25	3.38	0.58	30
(possibilities broadening tasks, very low = 1 .. very high = 5)	2	5	3.27	0.69	30
(possibilities for following courses, very low = 1 .. very high = 5)	1	5	3.60	0.77	30
(influence on content courses, very low = 1 .. very high = 5)	1	5	3.47	0.90	30
(influence on policy day-care centre, very low = 1 .. very high = 5)	1	4	3.17	0.83	30
Motivation childminders					
Extrinsic motivation (very low = 1 .. very high = 5)	1	5	3.21	0.77	466
Intrinsic motivation (very low = 1 .. very high = 5)	1.5	5	4.42	0.60	474

The table shows that the childcare providers in the sample differ from each other with regard to their employee governance. The percentage of substitute workers working with the childcare providers in the sample ranges from 0 to 38. On average, 15% of the childminders are substitute workers. Most childminders working in the childcare sector therefore have a permanent position. The staff-to-child ratio of the childcare providers in the sample ranges from 0.11 to 0.31, with an average of 0.21. A staff-to-child ratio of 0.21 means that there is about 1 full-time childminder per 5 children. According to the Childcare Policy Rules, on average, two childminders are required for a group of twelve children between ages 0 and 4. The average staff-to-child ratio that is required for groups with children of mixed ages is therefore 0.17. Although the childminders in the sample on average have fewer children under their supervision than the number that is stipulated in the Childcare Policy Rules, some childcare providers are characterised by a staff-to-child ratio that is lower than the prescribed norm.[4]

With regard to the focus on pay-for-performance in the reward and career system it appears that 30% of the childcare providers in the sample claim to offer rewards to childminders for displaying an above average work effort, whereas the chance to receive a promotion is for 93% of the childcare providers primarily determined by performance. The childcare providers further differ with regard to the attractiveness of the reward and career system. Of the childcare providers in the sample, 14% offer childminders a reward that is above the standards laid down in the collective labour agreement, whereas 41% of the childcare providers offer a package of secondary employment conditions that is more extensive than is necessary according to the collective labour agreement. Finally, childcare providers differ with regard to the attractiveness of the career system, for example, in the extent to which childminders are offered options for further education.

The next step is to explain the difference in employee governance, by the degree to which childcare providers are confronted with market forces. We presume that the more childcare providers are confronted with market forces, the more the employee governance will be characterised by flexible employment contracts, a tighter job design, a higher emphasis on pay-for-performance in the reward and career system, and a more attractive reward and career system. Table 2 presents the relation between the extent to which childcare providers are confronted with market forces and the different elements of employee governance.

Table 2: Regression analysis to explain the effects of market forces on employee governance (unstandardised coefficients)

Explaining variables	**Employee governance**					
	Flexibility employment contracts (low=0 ,high=1) B (s.e.)	*Tightness job design (low=0, high=1) B (s.e.)*	*Pay-for-performance reward system (no=0, yes=1) B (s.e.)*	*Pay-for-performance career system (no=0, yes=1) B (s.e.)*	*Attractiveness reward system (low, medium, high) B (s.e.)*	*Attractiveness career system (very low=1..very high=5) B (s.e.)*
Intercept	-1.157 (1.351)	-0.600 (1.592)	-0.754 (1.235)	1.554 (2.037)	0.338 (0.192)	3.403 (0.309)
Market forces						
Financial independence (low .. high)	-0.186 (0.137)	0.176 (0.143)	-0.079 (0.118)	0.064 (0.226)	0.035 (0.019)	0.040 (0.030)
Control variables						
Urbanity (low, medium, high)	0.528 (0.578)	0.509 (0.598)	0.093 (0.497)	0.063 (0.908)	-0.010 (0.080)	0.087 (0.123)
Size organisation (low, medium, high)	0.138 (0.529)	-0.275 (0.600)	-0.282 (0.514)	1.123 (1.076)	-0.036 (0.086)	-0.191 (0.128)
R^2	0.10	0.17	0.02	0.05	0.03	0.09
N	23	23	30	29	28	30

*** P < 0.01; * P < 0.05.*

The data reveal that, contrary to what we expected, the employee governance of childcare providers is not significantly related to the extent to which childcare providers are confronted with market forces.

The next step in our analysis involves the relation between market forces and the employee governance of childcare providers on the one hand, and the extrinsic and intrinsic motivation of the childminders on the other hand. The expected and realised effects are presented in Table 3.

Table 3: Expected and realised effects of market forces and employee governance on motivation

		Extrinsic motivation	**Intrinsic motivation**
Market forces	expected	0	-
	realised	0	0
Employee governance			
Flexibility employment contracts	expected	-	-
	realised	-	0
Tightness job design	expected	0	-
	realised	0	0
Pay-for-performance reward system	expected	+	-
	realised	0	0
Pay-for-performance career system	expected	+	-
	realised	0	0
Attractiveness reward system	expected	+	0
	realised	0	0
Attractiveness career system	expected	+	+
	realised	+	0

+: positive effect; -: negative effect; 0: no effect.

The extent to which childcare providers are confronted with market forces is expected to have a negative (crowding-out) effect on the intrinsic motivation of the childminders. With regard to the employee governance, flexible employment contracts are expected to be negatively related to the extrinsic and intrinsic motivation of the childminders, while an attractive career system is expected to be positively related to both types of motivation. A tight job design is expected to be unrelated to extrinsic motivation, but negatively related to intrinsic motivation, while attractive rewards are not expected to be related to intrinsic motivation, but are expected to be positively related to extrinsic motivation. Finally, the focus on pay-for-performance in the reward and career system is expected to be positively related to extrinsic motivation and negatively related to intrinsic motivation.

For the analysis of the relations between market forces and employee governance with employee motivation multilevel analysis is used. Given the hierarchic data structure - the childminders are working in daycare centres and the daycare centres belong to certain childcare providers - it is necessary to factor in the influence of the childcare organisation and the daycare centre when conducting analyses on employee level. Multilevel analysis acknowledges the hierarchic structure of the data by taking into account the variance on different levels (Snijders and Bosker, 1999).

As a first step in the analysis the empty model, without predictor variables, is estimated. In the empty model the intercept and the variances on organisation, location and employee level are estimated. Table 4 reports the variances of the extrinsic and intrinsic motivation of the childminders. The intercepts in this table show that the childminders are characterised by a higher level of intrinsic than extrinsic motivation. In the descriptive statistics of employee motivation in Table 1 this was already shown. Table 4 further indicates that childcare providers significantly differ from each other with regard to the extrinsic motivation of the childminders. The intrinsic motivation of the childminders does not, however, differ significantly among childcare providers and among daycare centres. Presumably this is related to the fact that childminders work in a comparable setting due to the uniform requirements that prevail in the Dutch childcare sector, for example with regard to the staff-to-child ratio. Although small differences in employee governance exist among childcare providers, these differences are too small in comparison with the large similarities in the work content of the childminders to explain differences in intrinsic motivation.

Table 4: Intercepts and variances extrinsic and intrinsic motivation

		Motivation childminders	
		Extrinsic motivation	*Intrinsic motivation*
Intercept		3.213 (0.062)	4.428 (0.028)
Variances organisation level (n=30)	Variances in %	11	0
Variances location level (n=68)	Variances in %	2	0
Variances employee level (n=477)	Variances in %	87	100
Deviance	one-level	1039.53	790.57
	two-level	1014.67**	790.57
	three-level	1014.33	790.57
N		446	446

*** P < 0.01; * P < 0.05.*

Given the lack of significant variance in intrinsic motivation on organisation and location level, a multilevel analysis is not necessary for the analysis of employee motivation. For reasons of uniformity we nevertheless conducted a multilevel analysis, explaining both extrinsic and intrinsic motivation.

In the next step of the analysis predictor variables are added to the model. In the analyses, only fixed effects are included. Table 5 shows how market forces and employee governance are related to the extrinsic and intrinsic motivation of the childminders. The data in the first column of Table 5 show that extrinsic motivation, as expected, is negatively related to the flexibility of employment contracts. Childminders working for a childcare provider with a higher than average percentage of substitute workers are characterised by a lower extrinsic motivation.[5] The expectation that an attractive career system is positively related to extrinsic motivation was also confirmed. For the expected positive relationship between extrinsic motivation and the attractiveness of the career system and the focus on pay-for-performance in the reward and career system, we found no confirmation.

Table 5 Multilevel analysis to explain the effects of market forces and employee governance on the extrinsic and intrinsic motivation of childminders (unstandardised coefficients)

Variables	*Extrinsic motivation (very low .. very high) B (s.e.)*	*Intrinsic motivation (very low .. very high) B (s.e.)*
Intercept	2.194 (0.446)	5.024 (0.355)
Market forces		
Financial independence (low .. high)	0.018 (0.015)	-0.020 (0.012)
Employee governance		
Flexible employment contracts (low = 0, high = 1)	-0.353 (0.088)**	-0.103 (0.070)
Tightness job design (low = 0, high = 1)	0.085 (0.084)	-0.002 (0.067)
Pay-for-performance reward system: bonus good performance (no = 0, yes = 1)	-0.097 (0.086)	-0.078(0.068)
Pay-for-performance career system: promotion based on performance (no = 0, yes = 1)	0.023 (0.211)	0.015 (0.168)
Attractiveness reward system (medium) (low = reference)	-0.081 (0.084)	0.007 (0.067)
Attractiveness reward system (high)	-0.249 (0.173)	0.224 (0.138)
Attractiveness career system (very low = 1 .. very high = 5)	0.369 (0.096)**	-0.093 (0.077)
Control variables organisation level		
Size organisation (low, medium, high)	0.039 (0.065)	-0.063 (0.052)
Control variables location level		
Urbanity location (low, medium, high)	-0.070 (0.060)	-0.028 (0.048)
Size location (low, medium, high)	-0.012 (0.059)	0.007 (0.047)
Control variables employee level		
Age (25-39) (< 25 = reference)	-0.205 (0.096)*	0.027 (0.077)
Age (>39)	-0.027 (0.119)	0.154 (0.095)
Job tenure (≤ 5 = 0, >5 = 1)	-0.040 (0.080)	-0.036 (0.064)
Education (low = 0, high = 1)	-0.287 (0.095)*	-0.131 (0.076)
Partner (no = 0, yes = 1)	0.109 (0.083)	-0.169 (0.066)**
Children (no = 0, yes = 1)	0.417 (0.562)	0.227 (0.070)**
Size contract (< 20)	0.154 (0.129)	-0.209 (0.102)*
Size contract (20-34) (> 34 = reference)	0.171 (0.095)	-0.086 (0.076)
Deviance	942.205	740.781
R^2	0.20	0.11
N	446	446

*** P < 0.01; * P < 0.05.*

Furthermore, the expectations with regard to the relationships between the different elements of employee governance and intrinsic motivation were not confirmed. The second column of Table 5 indicates that the intrinsic motivation of the childminders is not significantly related to any of the items of the employee governance of childcare providers. Moreover, our expectation that the introduction of market forces would be perceived negatively by the childminders and that the extent to which childcare providers are confronted with market forces would be negatively related to the intrinsic motivation of the childminders, was not confirmed either. These outcomes are not surprising given our finding from Table 4, i.e. that the intrinsic motivation of childminders does not differ significantly between childcare providers and daycare centres. It is interesting to notice, however, that the relation between the intrinsic motivation of the childminders and the extent to which childcare providers are confronted with market forces is not far from being significant. Although we did not find confirmation for the occurrence of a crowding-out effect, this effect does show that in explaining differences in intrinsic motivation this variable forms the most important factor.

Conclusions

In most Western countries market forces have been introduced in public sectors such as health care, home care, public transport, and social security over the past decade. One of the sectors subjected to the introduction of market forces is the Dutch childcare sector. So far, little attention has been paid to the possible consequences of such reforms in terms of the motivation of employees concerned. In this article, we tried to resolve this omission by analysing the consequences of the introduction of market forces in the Dutch childcare sector for the motivation of the childminders.

The introduction of market forces in the Dutch childcare sector is expected to change the employee governance of childcare providers and with this the extrinsic and intrinsic motivation of the childminders. The results, however, show that none of the elements of employee governance are significantly related to the extent to which childcare providers are influenced by market forces. Childcare providers confronted with a low level of market forces were not found to do a better or a worse job when motivating their employees than childcare providers confronted with a high level of market forces. For employee motivation of the childminders it therefore does not matter much whether or not the childcare provider is confronted with market forces. What matters is how employers in childcare are governing their employees.

With regard to the relationship between employee governance and employee motivation, we find that the employee governance of childcare providers is only significantly related to the extrinsic motivation of the childminders. Childminders working for a childcare provider with a higher than average percentage of substitute workers, are found to have a lower extrinsic motivation. Furthermore, the expectation that an attractive career system is positively related to extrinsic motivation has been confirmed. The employee governance of the childcare providers is not significantly related to the intrinsic motivation of the childminders. In addition, our expectation that the introduction of market forces would be perceived negatively by the childminders and as such is negatively related to the intrinsic motivation of the childminders has not been confirmed.

Although the analyses do not confirm our main predictions, it seems premature to conclude from the analyses presented in this article that the introduction of market forces in the Dutch childcare sector has left employee governance and employee motivation unaffected. Important reason is that the cross-sectional design may not capture perfectly a transition that takes place in time. A strong aspect of the analyses is the fact that a broad range of childcare providers are included, characterised by differences with regard to the extent to which they are financially dependent on the government, the urbanisation of the area in which they are located and their size. In addition, a good understanding of the effects of the introduction of market forces in the Dutch childcare sector has been achieved by including measurements on organisation level, location level and employee level. Nevertheless, the cross-sectional design applied in this study is subject to limitations.

The fact that none of the elements of employee governance are significantly related to the extent to which childcare providers are influenced by market forces might be explained by the small sample size (n=30). Moreover, the employee governance of childcare providers might be influenced by the announced introduction of the new Act on Childcare. All childcare providers, irrespective of whether or not they were being confronted with strong market forces at the time of the data collection, have been forced to increase their personnel efficiency to secure their financial position. As a result, the differences in employee governance of childcare providers may have diminished so much over time that at the time of the data collection the differences between various types of childcare providers were too small to find significant results.

Given the small differences in employee governance between the childcare providers in the sample and time lag effects, the extent to which childcare providers are confronted with market forces may not provide an ideal reflection of the development of childcare providers over time. Moreover, two recent Dutch publications (Bureau Bartels 2006; Regioplan 2008) do perceive a development in employee governance over time, which may have consequences for the motivation of childminders. The first report focuses on the process quality of the Dutch childcare sector and finds that more than half of the childcare providers under investigation have taken measures to realise more efficient employment of personnel, e.g. better planning of personnel, more flexible employment of staff, and improvement of the staff-to-child ratio (Bureau Bartels, 2006). The second report (Regioplan, 2008) finds that the introduction of market forces in the Dutch childcare sector has increased the attention childcare providers pay to the costs of production. Furthermore, an increase in flexibility of employment contracts is observed. This empirical evidence, leads us to conclude that the relationship between market forces and employee motivation, requires further investigation.

Our research indicates that especially the impact of market regulations that accompany the introduction of market forces should be studied in more detail. In the case of the Dutch childcare sector, for example, quality rules, laid down in the Childcare Policy Rules, contain minimum requirements that childcare providers have to fulfil, with regard to parental involvement, safety regulations, group size, staff-to-child ratio etcetera. Due to these uniform requirements childcare providers have little room in deciding how to structure their organisation and how to govern their employees. As a result, the working conditions for childminders do not differ much amongst Dutch childcare providers. All childminders work in a comparable setting with a comparable group of children with little variation in intrinsic motivation between childcare providers and daycare centres.

The extensive market regulation in the Dutch childcare sector may also be an important reason for not finding a crowding-out effect. The introduction of market forces was expected to be perceived negatively by the childminders, because financial considerations have been leading rather than the interest of the childminders or the children. The market regulations in the Dutch childcare sector, however, are especially geared towards protecting the interests of childminders and the children and as such may have balanced the negative impact of the introduction of market forces on employee motivation.

Notes

1. See Plantinga (2006) for a more extensive analysis of the appearance of possible crowding-out effects.

2. The actual response rate might be slightly higher since not all questionnaires that were sent to the daycare centres might have been distributed among the childminders.

3. In order to test whether single items form a consistent scale, we have conducted both reliability analysis and Mokken scale analysis (see Plantinga 2006, chapter 4). The reason for including this scale in the analysis, despite the low Cronbach's alpha, is that this scale has a Mokken H-value of 0.59, which is considered a strong scale.

4. These low staff-to-child ratios might be explained by a comparatively high average age of the children in the group, which requires less childminders. We have not controlled for that.

5. In comparison to childminders working for a childcare provider with a lower than average percentage of substitute workers. Please note that the childminders working for a childcare provider, of which the percentage of substitute workers is unknown, are characterised by a lower extrinsic motivation too.

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Authors' Addresses

Mirjam Plantinga (to whom correspondence should be addressed), Department of administrative law and public administration, Faculty of Law, University of Groningen, The Netherlands. Email: m.plantinga@rug.nl.

Janneke Plantenga, Utrecht University School of Economics, University of Utrecht, The Netherlands. Email: j.plantenga@uu.nl.

Jacques Siegers, Utrecht University School of Economics & Interuniversity Center for Social Science Theory and Methodology (ICS), University of Utrecht, The Netherlands. Email: j.j.siegers@uu.nl.